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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/520,684	03/07/2000	Jonathan S. Turner	27776	9090

26327 7590 03/08/2004

THE LAW OFFICE OF KIRK D. WILLIAMS
1234 S. OGDEN ST.
DENVER, CO 80210

EXAMINER

VOLPER, THOMAS E

ART UNIT	PAPER NUMBER
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2665

DATE MAILED: 03/08/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/520,684

Applicant(s)

TURNER ET AL.

Examiner

Thomas Volper

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 8 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 24, 25, 28-30 and 33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 24, 25, 28-30 and 33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☒ Interview Summary (PTO-413)
Paper No(s)/Mail Date 12.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

In an interview with Kirk Williams, 4 February 2004, the After Final Amendment B filed 8 January 2004 was discussed in detail. The Attorney clarified the position of Amendment B that the 35 USC 102(b) rejection of claims 26, 27, 31 and 32 was improper. The Examiner agreed with the Attorney that the Advisory Action dated 28 January had been in error in stating that the proposed After Final Amendment raised new issues. Rather, the After Final Amendment incorporated the limitations of improperly rejected claims 26 and 27 into claim 24, and improperly rejected claims 31 and 32 into claim 29. Thus, Amendment B has been entered and a new rejection of remaining claims 24, 25, 28-30 and 33 is set forth below.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 24, 25, 28-30 and 33 rejected under 35 U.S.C. 103(a) as being unpatentable over Fan (US 5,337,308).

Regarding claims 24, 28, 29 and 33, Fan discloses a multi-stage switching system

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that uses sequence control. Fan discloses receiving time stamped cells at second stage switching modules (16) and queuing these cells at input buffers (31) (col. 6, lines 15-19). These cells include reference time stamp (RT) cells that are produced at the first stage if an output buffer at the first stage is empty (col. 5, lines 47-55). These RT cells represent the floor indications of the present invention, and all the other cells received at the arrival buffers of the second stage represent the data packets of the present invention. Fan also discloses that a minimum time stamp (TS) value detector (34) examines the cells at the input buffers to determine one or more cells having the earliest time stamp value (col. 6, lines 19-24). If an RT cell is selected based on having the earliest time stamp value at a particular time, it is equivalent to discontinuing forwarding of a data packet during a current cell time, as in the present invention, since a data cell will not be sent unless it has the earliest time stamp value. Fan does not expressly disclose adding a new floor indication to an input buffer if removing a data cell from that input buffer would cause the arrival buffer to become empty. However, Fan does disclose that the first stage includes an empty buffer detector (22) that detects empty output buffers of the first stage and informs RT cell generator of a "no cell condition" and supplies an RT cell to the output link (col. 5, lines 47-55). In this way, the output buffers of the first stage never become empty, since if no data cell is present to send, an RT cell is sent. This effect is transferred to the second stage, where an arrival buffer would never become empty because an RT cell would be arriving at an input buffer where otherwise no data cell would be inputted. An arriving RT cell meets the limitation of adding a new floor indication to an arrival buffer. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to add this new floor indication to an input buffer of Fan, where the input buffer would otherwise become empty. One

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of ordinary skill in the art would have been motivated to do this to provide the minimum time stamp detector a reference time stamp value to use in comparison with all the other input buffers for deciding which cell contains the earliest time stamp value.

Regarding claims 25 and 30, Fan discloses that the process of selecting a cell based on earliest time stamp value occurs N times during a cell transfer time (col. 6, lines 25-39). Thus, it is possible for one RT cell to be sent, which is equivalent to discontinuing data cell forwarding, and for one data cell to be forwarded within one cell transfer time.

Conclusion

4. Any inquiry concerning this communication, or earlier communications from the examiner should be directed to Thomas Volper whose telephone number is 703-305-8405 and fax number is 703-746-9467. The examiner can normally be reached between 8:30am and 6:00pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached at 703-308-6602. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4750.

Thomas E. Volper

TEV

February 25, 2004



HUY D. VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600